



COMMONWEALTH of VIRGINIA

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Secretary of Natural Resources

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STATE OPERATING PERMIT STATIONARY SOURCE PERMIT TO OPERATE

**This permit implements the requirements for Best Available Retrofit Technology (BART)
This permit replaces your permit dated June 12, 2008.**

This permit (i) is for the purpose of implementing the "best available retrofit technology" (BART) requirements of Article 52 (9VAC5-40-7550 et seq.) of 9VAC5-40 (Existing Stationary Sources) of the Regulations of the Board and (ii) establishes control technology and other requirements for the control of visibility-impairing pollutants from the GP Big Island, LLC in the Blue Ridge Air Quality Control Region. These BART requirements shall be the legal and regulatory basis for control of visibility-impairing pollutants from this facility.

In compliance with the Federal Clean Air Act and the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution,

GP Big Island, LLC
9363 Lee Jackson Highway
Big Island, Virginia 24526
Registration No.: 30389
AIRS ID No.: 51-019-0003

is authorized to operate equipment subject to Best Available Retrofit Technology (BART) requirements under 40 CFR Part 51, located at

9363 Lee Jackson Highway, Big Island, Virginia

in accordance with the Conditions of this permit.

Approved on **June 12, 2008 and revised DRAFT 2012.**

Robert J. Weld
Regional Director

Permit consists of 6 pages.
Permit Conditions 1 to 18.

PERMIT CONDITIONS - The regulatory reference or authority for each condition is listed in parentheses () after each condition.

Process Requirements

1. **Equipment List** - Equipment to be operated under requirements for Best Available Retrofit Technology at this facility consists of the following:

| Equipment to be operated under Best Available Retrofit Technology | | | | |
|--|------------------------------|-----------------------|-----------------------------|--------------------------|
| Reference No. | Equipment Description | Rated Capacity | Federal Requirements | Installation Date |
| PWR05 | No. 5 Power Boiler | 339 MMBTU/hr | | 1977 |

Specifications included in the permit under this Condition are for informational purposes only and do not form enforceable terms or conditions of the permit.
(9VAC80-1180 D 3)

2. **Emission Controls** – Particulate matter and PM₁₀ emissions from the No. 5 Power Boiler shall be controlled by an electrostatic precipitator or an alternative control device as approved by VDEQ to provide equal or greater control. The electrostatic precipitator or alternative control device shall be provided with adequate access for inspection and shall be in operation when the No. 5 Power Boiler is operating.
(9VAC5-80-850, 9VAC5-40-7580 and 40 CFR 51.302)
3. **Emission Controls** – Nitrogen oxide emissions from the No. 5 Power Boiler shall be controlled by an overfire air system or an alternative control technology as approved by VDEQ to provide equal or greater control.
(9VAC5-80-850, 9VAC5-40-7580 and 40 CFR 51.302)
4. **Emission Controls** – Sulfur dioxide emissions from the No. 5 Power Boiler shall be controlled by a good operation practice to minimize emissions and by firing coal to a maximum of ten percent of the annual capacity factor for this boiler. Capacity factor shall be determined on the basis of heat content of the coal fired and calculated as the ratio between the actual heat input of coal during the preceding 12-month period and the potential heat input for this boiler had it been operated for 8760 hours at the maximum steady state design heat input capacity of 2,969,900 MMBTU/yr.
(9VAC5-80-850, 9VAC5-40-7580 and 40 CFR 51.302)
5. **Emission Control Replacement** – Future applications for the replacement of any of the required pollution control equipment cited in this permit shall include a BART cost and impact analysis, as well as a standard BACT analysis, if required.
(9VAC5-80-850, 9VAC5-40-7590 and 40 CFR 51.302)
6. **Emission Control Operation and Maintenance** - Emission control equipment shall be maintained and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations.
(9VAC5-40-7590.5)

Operating Limitations

7. **Fuel** - Coal shall meet the specifications below:

Maximum sulfur content per shipment: 1.3 % as determined by ASTM D3177, D4239, or a VDEQ-approved equivalent method

(9VAC5-80-850 and 9VAC5-40-7580)

Emission Limitations

8. **Emission Limits** - Emissions from the operation of the No. 5 Power Boiler shall not exceed the limits specified below:

| | | | |
|---------------------------------------|----------------|--------------|---------------|
| Particulate Matter ¹ | 0.07 lbs/MMBtu | 23.7 lbs/hr | 103.9 tons/yr |
| PM-10 ¹ | 0.07 lbs/MMBtu | 23.7 lbs/hr | 103.9 tons/yr |
| Sulfur dioxide | | 485.1 lbs/hr | 374.0 tons/yr |
| Nitrogen Oxides (as NO ₂) | | 139.3 lbs/hr | 610.1 tons/yr |

(9VAC5-80-850 and 9VAC5-40-7580)

Monitoring

9. **Monitoring Devices** – All active pollution control devices required by this permit or subsequently approved as replacements for such devices shall be equipped with one or more devices to continuously monitor the performance of the control device. Such monitors may include but are not limited to primary and secondary voltages for electrostatic precipitators and liquid flow rate and air pressure drop for the scrubber. Each monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the respective emission unit is operating except for system breakdowns, repairs, calibration checks, and zero and span adjustments. The specific monitoring requirements for each pollution control device shall be addressed in the Compliance Assurance Monitoring (CAM) Plan included in each renewal of the facility's federal operating permit. Control devices required for BART compliance shall be included in the CAM Plan irrespective of the uncontrolled emission potential of the controlled emission unit. (9VAC5-80-850)

Continuing Compliance Requirements

10. **Stack Tests and Modeling** - Upon request by the VDEQ, the permittee shall conduct performance tests for particulate matter, PM-10, nitrogen oxides, and/or sulfur dioxide from the No. 5 Power Boiler to demonstrate compliance with the emission limits contained in this permit. Also upon request, the permittee shall perform additional modeling to demonstrate compliance with 40 CFR Part 51, Subpart P or other federal requirements related to visibility impairment. The details of the tests shall be arranged with the Air Compliance Manager,

Blue Ridge Regional Office.
(9VAC5-50-30 G)

Records

11. On Site Records - The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Air Compliance Manager, Blue Ridge Regional Office. These records shall include, but are not limited to:

- a. Monthly and annual fuel consumption of each fuel fired in the No. 5 Power Boiler. Fuel consumption records shall be based on a daily average feed rate.
- b. Records of sulfur content for each shipment of coal used in the No. 5 Boiler.
- c. Measured or estimated monthly and annual particulate matter, PM-10, sulfur dioxide and nitrogen oxides emissions of the No. 5 Power Boiler. Estimated emissions shall be calculated by a methodology acceptable to VDEQ.
- d. The annual capacity factor for coal usage in the No. 5 Power Boiler calculated monthly, based on the annual fuel usage at the end of each calendar month.
- e. Calculated maximum hourly emissions of the No. 5 Power Boiler, which may be based either on measurements or engineering estimates or a combination. Maximum hourly emissions as a daily average may be acceptable on a case-by-case basis. Estimated emissions shall be calculated by a methodology acceptable to VDEQ. This calculation shall be checked, at a minimum, for each semi-annual compliance certification.
- f. Details of any method used for estimation of emissions above.
- g. Monitoring records for all pollution control devices required by this permit, as specified in the facility CAM plan.¹
- h. Monitoring records for all pollution control devices required by this permit, as specified in Conditions III-A-2b, III-A-2c, and III-B-3b(2) of the federal operating permit dated July 1, 2003 as amended July 30, 2004, until such time as the federal operating permit is renewed with a CAM plan.

These records shall be available for inspection by the DEQ and shall be current for the most recent five years.

(9VAC5-80-900)

GENERAL CONDITIONS

12. Relationship to Other Requirements - Except to the extent that conditions in this permit may be more stringent, this permit does not supersede or replace any other valid permit, regulatory or statutory requirement. Furthermore, this approval to operate shall not relieve GP Big Island, LLC of the responsibility to comply with all other local, state and federal

¹ effective upon renewal of the federal operating permit dated July 1, 2003 as amended July 30, 2004

regulations, including permit regulations.
(9VAC5-80-800 D and 9VAC5-80-820 F)

13. **Federal Enforceability**- Once the permit is approved by the U.S. Environmental Protection Agency into the Commonwealth of Virginia State Implementation Plan, the permit is enforceable by EPA and citizens under the federal Clean Air Act.
(9VAC5-80-800 D and 9VAC5-80-820 F)

14. **Permit Modification** - The Board may revise (modify, rewrite, change or amend) or repeal this permit with the consent of GP Big Island, LLC, for good cause shown by GP Big Island, LLC, or on its own motion provided approval of the revision or repeal is accomplished in accordance with Regulations of the Board and the Administrative Process Act (§ 2.2-4000 et seq.). Such revision or repeal shall not be effective until the revision or repeal is approved by the U. S. Environmental Protection Agency following the requirements of 40 CFR Part 51 (Requirements for Preparation, Adoption, and Submittal of Implementation Plans).
(9VAC5-80-960 and 9VAC5-80-1000)

15. **Failure to Comply** - Failure by GP Big Island, LLC to comply with any of the conditions of this permit shall constitute a violation of a Permit of the Board. Failure to comply may result in a Notice of Violation and civil penalty. Nothing herein shall waive the initiation of appropriate enforcement actions or the issuance of orders as appropriate by the Board as a result of such violations. Nothing herein shall affect appropriate enforcement actions by any other federal, state, or local regulatory authority.
(9VAC5-80-820 F, 9VAC5-80-910, and 9VAC5-80-1010)

16. **Right of Entry** - The permittee shall allow authorized local, state, and federal representatives, upon the presentation of credentials:

- a. To enter upon the permittee's premises on which the facility is located or in which any records are required to be kept under the terms and conditions of this permit;
- b. To have access to and copy at reasonable times any records required to be kept under the terms and conditions of this permit or the State Air Pollution Control Board Regulations;
- c. To inspect at reasonable times any facility, equipment, or process subject to the terms and conditions of this permit or the State Air Pollution Control Board Regulations; and
- d. To sample or test at reasonable times.

For purposes of this condition, the time for inspection shall be deemed reasonable during regular business hours or whenever the facility is in operation. Nothing contained herein shall make an inspection time unreasonable during an emergency.
(9VAC5-170-130 and 9VAC5-80-850)

17. **Change of Ownership** - In the case of a transfer of ownership of a stationary source, the new owner shall abide by any current permit issued to the previous owner. The new owner shall notify the Regional Director, Blue Ridge Regional Office of the change of ownership within 30 days of the transfer.
(9 VAC 5-80-940)

18. **Permit Copy** - The permittee shall keep a copy of this permit on the premises of the facility to which it applies.
(9VAC5-80-860 D)